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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/091,647	03/05/2002	Aedan Diarmuid Cailean Coffey	ERLG.P-032	9151

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EXAMINER

PARK, EDWARD K

ART UNIT	PAPER NUMBER
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2116

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/091,647

Applicant(s)COFFEY, AEDAN DIARMUID
CAILEAN**Examiner**

Edward K. Park

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new grounds of rejection.

Claim Objections

2. Claim 6 objected to because of the following informalities: the phrase "said resetting apparatus" in lines 5-6 of the claim should read "said method." Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5, and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Nouri (U.S. 6,330,690) in view of Chin (U.S. 6,000,020).
5. Regarding claim 1, Nouri discloses a processor resetting apparatus comprising: an interface arranged to receive a frame (column 3, lines 57-58) containing an indicator of a reset command for a server (580, 582) including a processor associated with resetting apparatus (164); and reset means, responsive to said reset command, to issue a reset command for resetting said processor (590, wherein the function of the high

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availability support chip is carried out by the remote interface (104) and the function of the reset controller is carried out by the microcontroller network (102, specifically components 166 and 168)). However, Nouri fails to disclose the apparatus wherein the interface is a fibre channel arbitrated loop (FC-AL) interface. Chin teaches a processor resetting apparatus comprising: an interface arranged to receive a frame (column 7, lines 20-22) containing an indicator of a reset command for a server (column 7, lines 24-25) including a processor associated with said resetting apparatus (column 3, lines 52-55), similar to Nouri. Chin further teaches the processor resetting apparatus wherein the interface is a fibre channel arbitrated loop (FC-AL) interface (column 5, lines 64-66). At the time of invention, it would have been obvious to one of ordinary skill in the art to combine the disclosure of Nouri's remote processor resetting apparatus with the teachings of Chin's FC-AL interface. The motivation for doing so would have been for low-cost and high-speed communication with the server.

6. Regarding claim 2, Nouri and Chin fully teach the limitations of claim 1, as listed above. Chin further teaches the apparatus of claim 1 wherein the server is one of a redundant pair of servers (column 6, lines 4-5).

7. Regarding claim 3, Nouri and Chin fully teach the limitations of claim 1, as listed above. Chin further teaches the apparatus of claim 1 wherein the apparatus comprises a separate component of a server motherboard (column 5, line 66 through column 6, line 2).

8. Regarding claim 5, Nouri discloses a processor resetting apparatus comprising: an interface arranged to receive a frame (column 3, lines 57-58) containing an indicator

of a reset command for a server (580, 582) including a processor associated with resetting apparatus (164); and a reset controller (102), responsive to said reset command, to issue a reset command for resetting said processor (590). However, Nouri fails to disclose the apparatus wherein the interface is a fibre channel arbitrated loop (FC-AL) interface. Chin teaches a processor resetting apparatus comprising: an interface arranged to receive a frame (column 7, lines 20-22) containing an indicator of a reset command for a server (column 7, lines 24-25) including a processor associated with said resetting apparatus (column 3, lines 52-55), similar to Nouri. Chin further teaches the processor resetting apparatus wherein the interface is a fibre channel arbitrated loop (FC-AL) interface (column 5, lines 64-66). At the time of invention, it would have been obvious to one of ordinary skill in the art to combine the disclosure of Nouri's remote processor resetting apparatus with the teachings of Chin's FC-AL interface. The motivation for doing so would have been for low-cost and high-speed communication with the server.

9. Regarding claim 6, Nouri discloses a method for use with a system comprising first and second servers (column 3, lines 57-59) communicatively coupled over a communications channel (123), each server comprising an interface coupled to the communications channel (column 3, lines 63-65), and arranged to receive a frame containing an indicator of a reset command for a server (column 3, lines 57-58) including a processor associated with said method (164); and a reset controller (102), responsive to said reset command, to issue a reset interrupt command for resetting said processor (590); the method comprising the steps of: at the first server, sending a frame

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over the communications channel containing an indicator of a reset command addressed to the second server (column 3, lines 64-65), at the second server receiving the frame over the communications channel containing the indicator of the reset command addressed to the second server (column 4, lines 2-3); at the second server, in response to the receipt of the frame containing the indicator of the reset command, issuing a reset interrupt command to the processor of the second server; whereby the processor of the second server is reset (590). However, Nouri does not disclose the method wherein the communications channel is a fibre channel arbitrated loop (FC-AL) communications channel, nor wherein the interface is an FC-AL interface. Chin teaches a method for use with a system comprising first and second servers communicatively coupled over a communications channel (16, 30), each server comprising an interface coupled to the communications channel (column 6, lines 7-10), and arranged to receive a frame (column 7, lines 20-22) containing an indicator of a reset command for a server (column 7, lines 24-25) including a processor associated with said method (column 3, lines 52-55), similar to Nouri. Chin further teaches the method wherein the communications channel is a fibre channel arbitrated loop (FC-AL) communications channel (column 5, line 64 through column 6, line 5), and wherein the interface is an FC-AL interface (column 5, lines 64-66). At the time of invention, it would have been obvious to one of ordinary skill in the art to combine the disclosure of Nouri's server reset method with the teachings of Chin's FC-AL communications channel and interface. The motivation for doing so would have been for low-cost and high-speed communication between the servers.

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10. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Nouri (U.S. 6,330,690) in view of Chin (U.S. 6,000,020), and in further view of Tomas (U.S. 5,892,954). As noted above, Nouri and Chin fully teach the limitations of claim 1. However, Nouri and Chin fail to disclose the apparatus wherein said FC-AL interface is arranged to receive a frame indicative of a lock request for a resource and wherein said apparatus further comprises: means for receiving from said associated processor an indicator of a resource to be locked; means for causing a corresponding indicator to be stored; means for causing said stored indicator to be deleted when an associated resource is unlocked; means, responsive to receiving a lock request frame originating from another processor, for checking any stored indicators for a matching locked resource; means, responsive to detecting a match, for transmitting a frame indicative of said resource being locked by said processor to the originator of said lock request; and means, responsive to not detecting a match, for transmitting said lock request frame to the originator of said lock request. Tomas teaches an interface arranged to receive a frame indicative of a lock request for a resource from an associated processor and means for receiving from said associated processor an indicator of a resource to be locked (column 3, line 37 – accessing the data file); means for causing a corresponding indicator to be stored (column 3, lines 37-38); means for causing said stored indicator to be deleted when an associated resource is unlocked (column 4, line 51 and item 280); means, responsive to receiving a lock request frame originating from another processor, for checking any stored indicators for a matching locked resource (column 4, lines 31-32); means, responsive to detecting a match, for transmitting a frame indicative of said

resource being locked by said processor to the originator of said lock request (column 4, lines 59-61); and means, responsive to not detecting a match, for transmitting said lock request frame to the originator of said lock request (column 4, lines 34-36). The basis of Tomas's invention lies in the minimization of file corruption and incorrect data in the environment of a multiprocessing computer system (column 1, lines 16-17). At the time of the invention it would have been obvious to one skilled in the art to combine the processor resetting apparatus disclosures of Nouri and Chin with the teachings of Tomas's resource lock. The motivation for doing so would have been the benefit of maintaining the integrity of the resource's contents.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. DeKoning (U.S. 5,933,824), Wolff (U.S. 6,044,367), Smith (U.S. 6,314,488), and Smith (U.S. 6,269,288).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward K. Park whose telephone number is (571) 272-5859. The examiner can normally be reached on M-F, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ekp


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